



**JINSP Company Ltd.**  
spectralanalyser.com

## Fiber Optic Spectrometer with 2048x64 Pixel Array and 14x14 $\mu\text{m}$ Pixel Size for Accurate and Sensitive Data in a Wide Wavelength Range

Our Product Introduction

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### Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: ISO9001 CE
- Model Number: SR100B
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: International Shipping Package
- Delivery Time: 30-400 working days
- Payment Terms: T/T, Western Union
- Supply Ability: 100PCS/30-40 days



### Product Specification

- Spectral Range: 200nm - 1100nm
- Effective Pixels: 2048\*64
- Pixel Size: 28.672\*0.896mm
- Integration Time: 4ms~900s
- Dimensions: 180mm\*120mm\*50mm
- Weight: 1.2kg



### More Images



## Product Description

### Backlit array CCD UV enhanced High Sensitivity Modular Spectrometer

The SR100B spectrometer represents a pinnacle of technological achievement in the realm of high-performance, back-illuminated CCD sensor devices. It is particularly well-suited for a wide array of industrial, laboratory, and research applications, where precision and reliability are paramount. At the heart of this remarkable instrument lies the Hamamatsu S10420 CCD chip, renowned for its expansive sensing area and the ability to deliver exceptionally stable spectral readings. This chip's design ensures that the spectrometer can capture a broad spectrum of data with remarkable accuracy.

The SR100B spectrometer is equipped with a 2048x64 pixel array, which, combined with a pixel size of 14x14 $\mu$ m, guarantees an outstanding quantum efficiency and sensitivity across the 200-1100nm wavelength range. This means that the device can detect even the faintest signals with high precision, making it an invaluable tool for detailed analysis in various scientific and industrial settings.

Moreover, the SR100B spectrometer offers the flexibility of customizable gratings and slit widths, allowing users to tailor the spectral resolution and sensitivity to their specific needs. This customization ensures that the spectrometer can be adapted for a diverse range of applications, from the analysis of complex chemical mixtures to the examination of materials under different conditions.

The high-resolution optical path of the SR100B spectrometer, coupled with its advanced FPGA (Field-Programmable Gate Array) signal processing technology, is designed to deliver impeccable spectrum signals. This sophisticated signal processing capability ensures that the data output is not only accurate but also consistent over time, providing users with a stable and reliable performance that they can count on for their most demanding tasks.

In summary, the SR100B spectrometer stands out as a versatile and powerful tool for professionals who require the utmost precision and dependability in their spectral analysis work. Its robust design, coupled with cutting-edge technology, makes it an indispensable asset in the pursuit of scientific and industrial excellence.

#### Product Parameters:

Detector	Chip Type	Back-illuminated cooling Hamamatsu S10420
	Effective Pixel	2048*64
	Pixel Size	14*14 $\mu$ m
	Sensing Area	28.672*0.896mm
Optical Parameters	Optical Design	F/4 cross type
	Numerical Aperture	0.13
	Focal Length	100mm
	Entrance Slit Width	10 $\mu$ m,25 $\mu$ m,50 $\mu$ m,100 $\mu$ m,200 $\mu$ m (customizable)
Electrical Parameters	Fiber Interface	SMA905,free space
	Integration Time	4ms~900s
	Data Output Interface	USB3.0,RS232,RS485,20pin connector
	ADC Bit Depth	16-bit
	Power Supply	5V
Physical Parameters	Operating Current	<3.5A
	Operating Temperature	10 ~40
	Storage Temperature	-20 ~60
	Operating Humidity	<90%RH(no condensation)
	Dimensions	180mm*120mm*50mm
	Weight	1.2kg

#### List of Product Models:

Model	Spectral Range(nm)	Resolution(nm)	Slit( $\mu$ m)
SR100B-G21	200~1100	2.2	50
		1.5	25
		1.0	10
SR100B-G23	200~875	1.6	50
		1.0	25
SR100B-G24	350~1025	0.7	10
SR100B-G28	200~345	0.35	50
		0.2	25
		0.14	10
SR100B-G25	532~720(4900cm <sup>-1</sup> )*	13cm <sup>-1</sup>	50
SR100B-G26	638~830(3200cm <sup>-1</sup> )*	10cm <sup>-1</sup>	25
SR100B-G27	785~1080(3200cm <sup>-1</sup> )*	11cm <sup>-1</sup>	50

**Note:**The\*are primarily designed for Raman applications, with the corresponding Raman.

### Technical Characteristics:

High sensitivity-Fitted with area array back-illuminated detector with high quantum efficiency,optimizable ultraviolet band  
High resolution -Resolution<1.0nm@10μm (200~1100nm)  
High flexibility-180~1100nm,compatible with multiple interfaces including USB3.0,RS232 and RS485  
High reliability -Ultra-high SNR and excellent thermal

### Typical Applications:

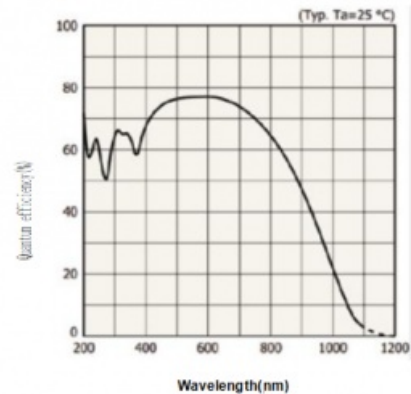
Detect absorption, transmittance and reflection Spectrum  
Light source and laser wavelength characterization  
OEM product module:Fluorescence spectrum,Raman spectrum,etc.

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CCD Quantum Efficiency Curve

### Company Introduction:

JINSP Company Limited, abbreviated as "JINSP", is a professional supplier with over 17 years of experience in spectral detection technology products, including Raman, FT-IR, LIBS technologies, etc. After 17 years of technology accumulation, the company's core key technologies have reached the international leading position at the level, and the cumulative number of patent applications exceeded 200.

In addition to its main headquarters located in the bustling city of Beijing, JINSP has established a fully owned subsidiary manufacturing facility situated in the province of Jiangsu, China.

JINSP Company received ISO9001:2015, ISO14001:2015, and ISO45001:2018 certifications. JINSP can provide required certifications, such as certification by the Ministry of Public Security or National Institute of Metrology, Environmental Level Certification, IP Level Certification, CE Certification, Transport Identification Report, EU ECAC certification, German ICT Security Testing, etc.

JINSP offers over twenty spectroscopic products across various fields, including pharmaceutical and chemical industries, public security, and customs. Products are available nationwide and are exported to over 30 countries, with cumulative sales exceeding 3,000 units.

Benefit from 30+ R&D engineers, including 4 Ph.D., JINSP is deeply rooted in the field of personalized product customization, and is committed to meeting the diverse and unique needs of customers with excellent professional technology and innovative design capabilities.

We uphold the core value of "customer-centric" to ensure that every customer can enjoy unprecedented flexibility and personalized experience. From the initial concept to the final product, we work closely together to ensure that every detail is accurately aligned with customer expectations, and together create exclusive products that exceed expectations.

# Company Profile





# Exhibition



# Certifications



## FAQ

Q1: This is the first time I use, is it easy to operate?

A1:We will send you manual and guide video in English,it can teach you how to operate the spectrometer.Also our technicians will offer professional technical operation meetings.

Q2:Can you offer a operation training?

A2:Your technicians can come to our factory for a training. Jinsp engineers can go to your place for local support ( installation , training, debugging, maintenance ).

Q3:What's your website?

A3:You can visit:[www.jinsptech.com](http://www.jinsptech.com)

Q4:What about your quality assurance?

A4:We have a quality inspection team. All goods will go through quality inspection before shipment. We can send you pictures for inspection.



JINSP

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